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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,244	06/25/2002	Jeffrey Lee Thompson	24-NS-06054	8427

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EXAMINER

BOCHNA, DAVID

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 09/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/064,244

Applicant(s)

THOMPSON, JEFFREY LEE

Examiner

David E. Bochna

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 and 12-20 is/are allowed.
- 6) ☒ Claim(s) 7-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent 0013259 in view of Chaix et al.

In regard to claim 7, Japanese Patent '259 discloses a coupling spring for coupling a first pipe section flange 2 to a second pipe section flange (see fig. 6), each flange comprising a notch (notch in 2 accepting 9), the spring ring comprising:

a body 8 having a first surface and an opposing second surface, the body comprising a main bore and a plurality of bolt bores (holes for 5) extending therethrough from the first surface through the opposing second surface, the main bore configured to receive a pipe section 1 therethrough, the bolt bore configured to receive a fastener 5 therethrough;

a plurality of pivot bearings 9 (see fig. 11, 12) extending from the first surface, each pivot bearing 9 configured to engage one notch in the flange. It is unclear if there is more than one notch in the flange, however if there is only one notch it would have been obvious to have a separate notch for each pivot bearing 9 because duplicating the components of a prior art device is a design consideration within the skill of the art. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

Japanese Patent '259 also discloses axially stressing the bolts 5 in order to hold the coupling together, but Japanese Patent '259 does not disclose using a plurality of bolt bore seats coaxially aligned with the bolt bores. Chaix et al. teaches providing a plurality of bolt bore seats 56, 58 coaxially aligned with bolt bores in order to center the bolts within the hole allowing only an axial load to be placed on the bolts, thereby eliminating a chance of bending (see col. 3, lines 25-30). Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the bores of Japanese Patent '259 to include bore seats, as taught by Chaix et al., so that the bolts are only axially stressed, thereby reducing the chance of bending.

In regard to claim 8, the spring ring 8 is substantially cylindrical.

In regard to claim 9, the plurality of pivot bearings 9 are equally spaced circumferentially around the spring ring first surface.

In regard to claim 10, the plurality of bolt bore seats 56, 58 are substantially spherical.

In regard to claim 11, further comprising a bolt 46 (of Chaix et al.) extending through each bolt bore, each bolt comprising at least one spherical bearing (bottom of 48) sized to mate with a bolt bore seat 56.

### ***Allowable Subject Matter***

3. Claims 1-6 and 12-20 are allowed.

### ***Response to Arguments***

4. Applicant's arguments filed 6/9/04 have been fully considered but they are not persuasive. Applicant argues that it would not have been obvious to combine the bolt bore seats of Chaix et al. with Japanese Patent 13,259 because turning of the claw section in the Japanese

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Patent relieves bending stresses in the valve cover, and therefore it is not necessary to have bolt bore seats to reduce bending stresses. The examiner disagrees. The bending stresses being reduced in '259 are that of the valve cover, not the bolts. Chaix et al. teaches providing bolt bores 56, 58 to reduce bending stresses in the bolts and allow only a purely axial force to be applied during tightening (see col. 3, lines 25-30). Bending stresses in the bolt would not be relieved by the protrusion 9 in Japanese Patent 13,259. Therefore the rejection has been maintained.

### *Conclusion*

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Bochna whose telephone number is (703) 306-9040. The examiner can normally be reached on 8-5:30 Monday-Thursday and every other Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (703) 308-2686. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2168.

A handwritten signature in black ink, appearing to read "David Bochna", with a stylized flourish at the end.

**David Bochna**  
**Primary Examiner**  
**Art Unit 3679**  
**September 13, 2004**